

**AMENDMENTS TO THE CLAIMS:**

Please cancel claim 12, without prejudice and amend claim 26, as shown below.

This listing of claims will replace all prior versions and listings of claims in the  
Application:

**Claims 1-12 (canceled)**

**Claim 13 (previously presented)** The process according to claim 26, wherein the substrate is cooled during the process.

**Claim 14 (previously presented):** The process according to claim 26, wherein at least one layer of amorphous hafnium oxide having a density between 6.4 and 8.1 gm/cm<sup>3</sup> is formed.

**Claim 15 (previously presented):** The process according to claim 26, wherein at least one layer of hafnium oxide having a density lower than 8 gm/cm<sup>3</sup> is formed.

**Claim 16 (previously presented):** The process according to claim 26, wherein a stack of layers is formed.

**Claim 17 (previously presented):** The process according to claim 16, wherein the stack also includes at least one layer formed of a material having a refractive index different from that of hafnium oxide.

**Claim 18 (canceled):**

**Claim 19 (previously presented):** Process as claimed in Claim 26, wherein a stack comprising at least one layer of another material is formed on a surface of the amorphous layer of hafnium oxide.

**Claim 20 (previously presented):** Process as claimed in Claim 19, wherein said another material comprises silicon oxide.

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**Claim 21 (previously presented):** Process as claimed in Claim 19, wherein the stack comprises alternate layers of amorphous hafnium oxide having a density less than  $8 \text{ gm/cm}^3$  and another material.

**Claim 22 (previously presented):** The process as claimed in Claim 21, wherein said another material comprises silicon oxide.

**Claim 23 (previously presented):** A process for forming an optical component which comprises vacuum depositing on a substrate at least one layer of amorphous hafnium oxide by the process of claim 26.

**Claim 24 (previously presented):** The process according to claim 23, wherein the at least one layer of hafnium oxide comprises amorphous hafnium oxide having a density less than  $8 \text{ gm/cm}^3$ .

**Claim 25 (previously presented):** The process according to claim 24, wherein the optical component comprises a mirror.

**Claim 26 (currently amended):** A process for forming a layer of hafnium oxide on a substrate which comprises forming a vapor of hafnium by reactive evaporation of metallic hafnium, and condensing without ion bombardment the vapor on the substrate under oxygen, said process comprising a plurality of deposit periods interrupted by cooling periods, each cooling period lasting for a time equivalent to one or several times the preceding deposit period, whereby ~~while maintaining the substrate at ambient temperature, to form~~ an amorphous layer of hafnium oxide is formed on said substrate.

**Claim 27 (previously presented):** The process according to claim 26, wherein the substrate is at about  $20^\circ\text{C}$ .

**Claim 28 (previously presented):** The process according to claim 26, wherein the process is conducted in a vacuum chamber.

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